

**REMARKS**

Applicants wish to thank the Examiner for considering the present application. In the Office Action dated July 13, 2004, claims 1-33 are pending in the application. The allowance of claims 30 and 33 is noted. The allowability of claims 10, 11, 15-20, and 24-28 if rewritten to overcome the §112 rejections is also noted.

Claims 8-21 and 31-33 stand rejected under 35 U.S.C. §112, second paragraph, as failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

With respect to claim 8, the Examiner states that, "it is not clear how the 'wheel averaging method' ... is carried out to perform the response." Applicants respectfully submit that one embodiment of the wheel averaging method is set forth in paragraphs 206-208, which begin on page 77 of the detailed description.

Claim 9 was objected to for having antecedent basis with respect to the reference angle and the linear bank angle. Applicants have amended claim 9 to refer to a reference bank angle and a linear bank angle.

Claim 14 has also been amended to remove the word absolutely in the last line of the claim to provide antecedent basis with the step above.

Claims 16 and 17 are objected to for the wording "possibly grounded." In short, the application refers to different states of absolutely grounded, possibly grounded, absolutely lifted and possibly lifted. These different states are determined in various places throughout the application based on various inputs. It should be understood that the difference states are derived from the various sensors within the vehicle. Thus, a direct observation cannot be formed. Thus, it may be inferred from the various sensors that the vehicle is in a predetermined condition. The various conditions for setting the possibly grounded, absolutely grounded, possibly lifted and absolutely lifted states are determined during vehicle development based on the sensors. That is, based on the sensors there is a possibility that the system is grounded but that determination is not a 100 percent positive condition. Thus, various control sequences may be performed based on the various states.

Claims 30 and 32 are also objected to. Claims 30, 31 and 32 have been amended to clarify the wheel lift states. Applicants respectfully request the Examiner to reconsider this rejection as well.

With respect to claim 33, various methods are set forth in the specification for detecting wheel lift. The gist of claim 32 is switching between wheel lift detection

methods based on vehicle configuration or setting. Therefore, applicants respectfully believe that claim 33 is clear.

Claims 1-9, 12-14, 21-23, 29, 31, and 32 stand rejected under 35 U.S.C. §102(b) as being anticipated by *Mine* (5,515,277). Claim 1 recites determining a yaw rate, lateral acceleration, roll rate, longitudinal acceleration, a calculated angle relative to the vehicle, generating a wheel lift signal or a wheel grounded signal as a function of yaw rate, lateral acceleration, roll rate and longitudinal acceleration, adjusting the calculated angle in response to the wheel lift or wheel grounded signal, and controlling a safety system in response to the calculated vehicle angle. The Examiner points to Col. 7, lines 6-19, for determining a yaw rate using a yaw moment equilibrium equation. Applicants can find no teaching or suggestion for determining a yaw rate. Further, the *Mine* reference does not teach determining a roll rate. Although a rolling moment calculation is determined, no roll rate has been determined. Applicants can find no teaching or suggestion for generating a wheel lift signal or a wheel grounded signal as a function of yaw rate, lateral acceleration, roll rate and longitudinal acceleration. Further, no teaching or suggestion is provided for the step of adjusting the calculated angle in response to the wheel lift or wheel grounded signal. The Examiner has failed to point to the existence of either of these steps in the *Mine* reference. *Mine* teaches a height responsive to the absolute value of the detected longitudinal acceleration or deceleration by reducing the reference vehicle height with increase of the absolute value so that the vehicle body is lowered while the pitching is maintained at a predetermined value so as to obtain the better driver sensation during vehicle acceleration and deceleration. The *Mine* reference does not teach or suggest detecting a wheel lift or wheel grounded condition. Applicants therefore respectfully request the Examiner to reconsider the rejection of claim 1.

Likewise, claims 2-8 are also believed to be allowable since each and every step is not recited in the *Mine* reference.

Independent claim 9 recites the two steps of detecting a wheel grounded condition, and adjusting a reference bank angle toward a linear bank angle in response to the wheel grounded condition. The Examiner points to Col. 8, lines 31-33, for a wheel grounded condition. Applicants can find no teaching or suggestion that a system recited in those lines detects that the wheels are grounded. Further, no teaching or suggestion is found for adjusting a reference bank angle toward a linear bank angle in response to the wheel grounded condition. Applicants have reviewed Col. 4, lines 3-18, and can find no teaching or suggestion of a reference bank angle or a linear bank angle.

Claims 12-13 are dependent upon claim 9 and are believed to be allowable for the same reasons set forth above.

Claim 14 is an independent claim that includes the step of detecting a wheel grounded condition and setting a wheel departure angle to about zero in response to the grounded condition. As mentioned above, applicants respectfully submit that no detection of a wheel grounded condition is set forth. Further, no detection of a wheel departure angle is set forth in the *Mine* reference. The wheel departure angle is illustrated as  $\theta_w$  in Figs. 3 and 4. That is, the wheel departure angle is the angle between the axis of the wheel (such as at the axles) and the ground. Because no detection of a wheel grounded condition or lift condition occurs, applicants respectfully submit that there would be no motivation to determine a wheel departure angle in the *Mine* reference.

Claim 21 is dependent upon claim 14 and is thus believed to be allowable for the same reasons set forth above.

Claim 22 is an independent claim that includes the step of determining a wheel lift condition and adjusting a roll signal for control in response to the wheel lift condition. As mentioned above, applicants respectfully submit that no teaching of determining a wheel lift condition is present in the *Mine* reference. Further, no teaching or suggestion is provided for a roll signal for control since the *Mine* reference is not concerned with rolling over of the vehicle. Applicants respectfully request the Examiner to reconsider claim 22 as well as dependent claim 23. Applicants therefore respectfully request the Examiner to reconsider the present application since each and every element of the claims are not found in the *Mine* reference.

In light of the above amendments and remarks, applicants submit that all objections are now overcome. Applicants respectfully submit that the application is now in condition for allowance and expeditious notice thereof is earnestly solicited. Should the Examiner have any questions or comments the Examiner is respectfully requested to call the undersigned attorney.

Please charge any fees required in the filing of this amendment to Deposit Account 06-1510.

Respectfully submitted,



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